INDEX TO AUTHORS

A

Alexander, Benjamin, and **Subbarow, Yellapragada.** A new bios factor in liver extract, 341

Allison, James B., and **Cole, William H.** The nitrogen, copper, and hemocyanin content of the sera of several arthropods, 259

Almquist, H. J., and **Mecchi, E.** Identification of the rice factor. The essential nature of the glycine component, 355

—. See *Klose and Almquist,* 153

Alvarez-Tostado, C. Convection effects in electrophoresis, 799

Anderson, Arthur K. See *Matthews, Dow, and Anderson,* 697

Anderson, Carl E. See *Tenery and Anderson,* 659

Anderson, Ernest, Seeley, Millard, Stewart, William T., Redd, John C., and **Westerbeke, Don.** The origin and composition of the hemicelluloses obtained from hardwoods, 189

Anson, M. L. The sulfhydryl groups of egg albumin, 797

Antopol, William. See *Scudi, Unna, and Antopol,* 371

Arnold, Aaron. See *Weinstock, May, Arnold, and Price,* 343

Artom, Camillo, and **Freeman, John A.** Individual phospholipids in plasma of rabbits after fatty meals, 59

Atkin, Lawrence. See *Schultz, Atkin, and Frey,* 267

Aull, J. C., and **Kinard, Fredrick W.** The determination of tungsten in biological materials, 119

Avrin, Ira. See *Erickson, Avrin, Teague, and Williams,* 671

B

Baer, Erich, and **Fischer, Hermann O. L.** Synthesis of the *d*(+)-α-glycerophosphoric acid and the action of phosphatases on synthetic *d*(+)-, *l*(−)-, and *dl*-α-glycerophosphoric acids, 321

Ballou, Gerald A., and **Luck, James Murray.** Buffer influence on taka-diastase, 111

Bamman, Frieda. See *Jensen, Tolksdorf, and Bamman,* 791

Barkan, Georg, and **Walker, Burnham S.** Determination of serum iron and pseudohemoglobin iron with *o*-phenanthroline, 37

— and —. Differentiation of red blood cells by their pseudohemoglobin content, 803

Barnes, Richard H. See *MacKay, Barnes, Carne, and Wick,* 157

Barnum, Cyrus P. See *MacKay, Wick, and Barnum,* 183

Bergmann, Max. See *Doherty, Stein, and Bergmann,* 487

Bloch, Konrad, and **Schoenheimer, Rudolf.** The biological demethylation of sarcosine to glycine, 99

Block, Paul, Jr. A note on the conversion of diiodotyrosine into thyroxine, 51

Blunden, Harry, Hallman, Lois F., Morehouse, Margaret Gulick, and

Deuel, Harry J., Jr. Studies on ketosis. XVIII. An experimental study of the Van Slyke procedure for the determination of β-hydroxybutyric acid, 757
Boyd, Eldon M. See *Clarke and Boyd*, 691
Brown, Raymond A. See *Emmett, Peacock, and Brown*, 131
Brückmann, Gerhard, and **Zondek, Samuel Georg.** An improved method for the determination of non-hemin iron, 23

C

Carne, Herbert O. See *MacKay, Barnes, Carne, and Wick*, 157
Chaikoff, I. L. See *Entenman, Montgomery, and Chaikoff*, 329
—. See *Perlman, Stillman, and Chaikoff*, 359
Chandler, Joseph P., and **du Vigneaud, Vincent.** The comparative action of choline and betaine in effecting the replacement of methionine by homocystine in the diet, 223
Chargaff, Erwin, Ziff, Morris, and **Cohen, Seymour S.** The conversion of prothrombin to thrombin, followed by means of the radioactive phosphorus isotope, 351
Cholnoky, L. See *Zechmeister and Cholnoky*, 31
Christensen, Halvor N. Synthesis of esters of phosphoric acid related to phosphatides, 399
Clark, W. Mansfield, and **Perkins, Marie E.** Metalloporphyrins. V. A spectrophotometric study of pyridine coproporphyrin I, 643
—, **Taylor, John Fuller, Davies, T. Harrison,** and **Vestling, Carl S.** Metalloporphyrins. I. Coordination with nitrogenous bases. Theoretical relations, 543
Clarke, Eleanor L., and **Boyd, Eldon M.** A seasonal study of the iodine content of the blood of birds, 691
Coffman, J. R., and **Koch, F. C.** The effect of testosterone propionate on induced creatinuria in rats, 519
Cohen, Seymour S. See *Chargaff, Ziff, and Cohen*, 351
Cole, William H. See *Allison and Cole*, 259
Coolidge, Thomas B. A simple ultrafiltration apparatus, 541
Cooper, Gerald R. See *Neurath and Cooper*, 455
Cori, Carl F. See *Cori and Cori*, 733
Cori, Gerty T., and **Cori, Carl F.** The kinetics of the enzymatic synthesis of glycogen from glucose-1-phosphate, 733
Corsaro, Joseph F., Mangun, George H., and **Myers, Victor C.** Comparative creatine concentration of three voluntary muscles in seventy-four autopsy cases, 407
Crandall, Lathan A., Jr. The form in which acetone bodies are produced by the liver, 139

D

Davies, T. Harrison. Metalloporphyrins. III. Coordination of nitrogenous bases with iron meso-, proto-, and hematoporphyrins, 597
—. See *Clark, Taylor, Davies, and Vestling*, 543
Deuel, Harry J., Jr. See *Blunden, Hallman, Morehouse, and Deuel*, 757
Dohan, Janetta Schoonover. Glycolic acid oxidase, 793

Doherty, David G., Stein, William H., and **Bergmann, Max.** Aromatic sulfonic acids as reagents for amino acids, 487

Dorfman, Ralph I., and **Fish, William R.** The conversion of testosterone into etioallocholanol-3(β)-17-one, 349

Dow, R. B. See *Matthews, Dow, and Anderson,* 697

E

Ecker, E. E., Pillemer, L., Jones, Chase Breese, and **Seifter, S.** Separation of complement from fresh guinea pig serum, 347

Eckstein, H. C. See *Tucker, Treadwell, and Eckstein,* 85

Eisenman, Anna J., Ott, Lawrence, Smith, Paul K., and **Winkler, Alexander W.** A study of the permeability of human erythrocytes to potassium, sodium, and inorganic phosphate by the use of radioactive isotopes, 165

Emmett, A. D., Peacock, Gail, and **Brown, Raymond A.** Chemical determination of thiamine by a modification of the Melnick-Field method, 131

Entenman, C., Montgomery, M. Laurence, and **Chaikoff, I. L.** The effect of choline on the blood and liver lipids of the dog subjected to ligation of the pancreatic ducts, 329

Erickson, Betty Nims, Avrin, Ira, Teague, D. Maxwell, and **Williams, Harold H.** Micromethods for the determination of sphingomyelin and choline. Applications for the estimation of the phospholipid partition (sphingomyelin, lecithin, and cephalin) in blood and tissues, 671

Evans, Herbert M. See *Fraenkel-Conrat, Fraenkel-Conrat, Simpson, and Evans,* 199

F

Feinstein, Robert N., and **Stare, F. J.** The effect of various media and of pyrophosphate on the respiration of liver tissue, 393

Field, Henry, Jr. See *Melnick and Field,* 53

Finkelstein, Norma. See *Smith, Finkelstein, and Smith,* 231

Fischer, Hermann O. L. See *Baer and Fischer,* 321

Fish, William R. See *Dorfman and Fish,* 349

Fraenkel-Conrat, Heinz. See *Fraenkel-Conrat, Fraenkel-Conrat, Simpson, and Evans,* 199

Fraenkel-Conrat, Jane, Fraenkel-Conrat, Heinz, Simpson, Miriam E., and **Evans, Herbert M.** Purification of thyrotropic hormone of the anterior pituitary, 199

Freeman, John A. See *Artom and Freeman,* 59

Frey, Charles N. See *Schultz, Atkin, and Frey,* 267

Fricke, H. H. See *Longenecker, Fricke, and King,* 497

G

Golumbic, Calvin, and **Mattill, H. A.** α-Tocopherylquinone and dystrophy in rabbits, 339

Goodhart, Robert. A revaluation of the method described by Goodhart and Sinclair for the determination of blood cocarboxylase values, 77

Grattan, J. F., and **Jensen, H.** The effect of the pituitary adrenocorticotropic hormone and of various adrenal cortical principles on insulin hypoglycemia and liver glycogen, 511

Green, D. E., Herbert D., and Subrahmanyan, V. On the isolation and properties of carboxylase, 795
—. See *Williamson and Green*, 345
Greenberg, David M., and Winnick, Theodore. Plant proteases. I. Activation-inhibition reactions, 761
— and —. II. pH-activity curves, 775
— and —. III. Kinetic properties, 781
Greenwald, Isidor, Redish, Jules, and Kibrick, Andre C. The dissociation of calcium and magnesium phosphates, 65

H

Hallman, Lois F. See *Blunden, Hallman, Morehouse, and Deuel*, 757
Heard, R. D. H., and Hoffman, M. M. The isolation of Δ-5,7,9-estratrienol-3-one-17 from the urine of pregnant mares, 801
Hemingway, Allen. See *Wood, Werkman, Hemingway, and Nier*, 789
Herbert, D. See *Green, Herbert, and Subrahmanyan*, 795
Heuser, G. F. See *Schumacher, Heuser, and Norris*, 313
Hoffman, M. M. See *Heard and Hoffman*, 801
Hogden, Corinne G. See *Robinson and Hogden*, 707, 727
Holtorff, A. F., and Koch, F. C. The colorimetric estimation of 17-ketosteroids and their application to urine extracts, 377

J

Jensen, H., Tolksdorf, Sibylle, and Bamman, Frieda. Purification of the interstitial cell-stimulating and follicle-stimulating hormones of the pituitary, 791
—. See *Grattan and Jensen*, 511
Jones, Chase Breese. See *Ecker, Pillemer, Jones, and Seifter*, 347

K

Kibrick, Andre C. See *Greenwald, Redish, and Kibrick*, 65
Kinard, Fredrick W. See *Aull and Kinard*, 119
King, C. G. See *Longenecker, Fricke, and King*, 497
Klein, Daniel. The determination of acetone and acetoacetic acid in blood by the bisulfite-binding method and its relation to pyruvic acid, 143
Klein, J. Raymond. See *Kohn and Klein*, 685
Klose, A. A., and Almquist, H. J. The ability of citrulline to replace arginine in the diet of the chick, 153
Koch, F. C. See *Coffman and Koch*, 519
—. See *Holtorff and Koch*, 377
Koenemann, Richard H. A modification of the Miller-Muntz method for colorimetric determination of lactic acid, 105
Kohn, Henry I., and Klein, J. Raymond. Synthesis of factor V (pyridine nucleotides) from nicotinic acid *in vitro* by human erythrocytes, 685
Kuna, Martin. See *Ovakimian, Kuna, and Levene*, 91

L

Lauffer, Max A., and Stanley, W. M. Studies on the sedimentation rate of bushy stunt virus, 463
Levene, P. A. See *Ovakimian, Kuna, and Levene*, 91
Levy, Edward D. See *Sarett, Perlzweig, and Levy*, 483
Longenecker, Herbert E., Fricke, H. H., and King, C. G. The effect of organic compounds upon vitamin C synthesis in the rat, 497

Luck, James Murray. See *Ballou and Luck,* 111

M

MacKay, Eaton M., Barnes, Richard H., Carne, Herbert O., and **Wick, Arne N.** Ketogenic activity of acetic acid, 157

—, **Wick, Arne N.,** and **Barnum, Cyrus P.** Ketogenic action of short chain, even numbered carbon fatty acids in carbohydrate-fed animals, 183

Mangun, George H., and **Myers, Victor C.** Normal creatine, phosphorus, and potassium content of human cardiac and voluntary muscle, 411

—. See *Corsaro, Mangun, and Myers,* 407

Matthews, Jason E., Jr., Dow, R. B., and **Anderson, Arthur K.** The effects of high pressure on the activity of pepsin and rennin, 697

Mattill, H. A. See *Golumbic and Mattill,* 339

May, Everette L. See *Weinstock, May, Arnold, and Price,* 343

McShan, W. H., and **Meyer, Roland K.** The preparation and properties of pituitary follicle-stimulating fractions made by trypsin digestion, 473

Mecchi, E. See *Almquist and Mecchi,* 355

Melnick, Daniel, and **Field, Henry, Jr.** Chemical determination of nicotinic acid: inhibitory effect of cyanogen bromide upon the aniline side reactions, 53

Melnick, Joseph L. See *Stern and Melnick,* 365

Meyer, Roland K. See *McShan and Meyer,* 473

Montgomery, M. Laurence. See *Entenman, Montgomery, and Chaikoff,* 329

Morehouse, Margaret Gulick. See *Blunden, Hallman, Morehouse, and Deuel,* 757

Moss, A. R., and **Schoenheimer, Rudolf.** The conversion of phenylalanine to tyrosine in normal rats, 415

Myers, Victor C. See *Corsaro, Mangun, and Myers,* 407

—. See *Mangun and Myers,* 411

N

Neurath, Hans, and **Cooper, Gerald R.** The diffusion constant of tomato bushy stunt virus, 455

Nier, A. O. See *Wood, Werkman, Hemingway, and Nier,* 789

Norris, L. C. See *Schumacher, Heuser, and Norris,* 313

O

Ott, Lawrence. See *Eisenman, Ott, Smith, and Winkler,* 165

Ovakimian, G., Kuna, Martin, and **Levene, P. A.** The reaction of the esters of phenylaminoacetic acid and of phenylalanine on the Raney catalyst, 91

P

Peacock, Gail. See *Emmett, Peacock, and Brown,* 131

Pennington, Derrol, Snell, Esmond E., and **Williams, Roger J.** An assay method for pantothenic acid, 213

Perkins, Marie E. See *Clark and Perkins,* 643

Perlman, I., Stillman, N., and **Chaikoff, I. L.** Radioactive phosphorus as an indicator of phospholipid metabolism. XII. Further observations on the effects of amino acids on phospholipid activity of the liver, 359

Perlzweig, William A. See *Sarett, Perlzweig, and Levy,* 483

Pillemer, L. See *Ecker, Pillemer, Jones, and Seifter,* 347

Price, Donald. See *Weinstock, May, Arnold, and Price,* 343

Pucher, George W. See *Vickery, Pucher, Schoenheimer, and Rittenberg,* 531

R

Rapoport, S. Phytic acid in avian erythrocytes, 403

Ratner, S., Rittenberg, D., and Schoenheimer, Rudolf. The stability of hydrogen-carbon linkages in glutamic acid, 357

Redd, John C. See *Anderson, Seeley, Stewart, Redd, and Westerbeke,* 189

Redish, Jules. See *Greenwald, Redish, and Kibrick,* 65

Reichel, Max, and **Thannhauser, S. J.** Studies on animal lipids. XVII. The synthesis of lignocerylsphingosine fatty acid esters (sphingosine fats) and sphingosine amides (ceramides), 15

—. See *Thannhauser and Reichel,* 1

Reiser, Raymond. Phosphorus changes during the absorption of oil and glucose, 303

Rittenberg, D. See *Ratner, Rittenberg, and Schoenheimer,* 357

—. See *Vickery, Pucher, Schoenheimer, and Rittenberg,* 531

Robinson, Howard W., and **Hogden, Corinne G.** The biuret reaction in the determination of serum proteins. I. A study of the conditions necessary for the production of a stable color which bears a quantitative relationship to the protein concentration, 707

— and —. II. Measurements made by a Duboscq colorimeter compared with values obtained by the Kjeldahl procedure, 727

Rossiter, Roger James. Some factors influencing the oxidation of alanine by liver tissue, 431

Routh, Joseph I. Chemical studies on powdered wool, 175

S

Sarett, Herbert P., Perlzweig, William A., and **Levy, Edward D.** Synthesis and excretion of trigonelline, 483

Schoenheimer, Rudolf. See *Bloch and Schoenheimer,* 99

—. See *Moss and Schoenheimer,* 415

—. See *Ratner, Rittenberg, and Schoenheimer,* 357

—. See *Vickery, Pucher, Schoenheimer, and Rittenberg,* 531

Schultz, Alfred S., Atkin, Lawrence, and **Frey, Charles N.** The effect of bios on the nitrogen metabolism of yeast. I. Ammonia and carbamide, 267

Schumacher, A. E., Heuser, G. F., and **Norris, L. C.** The complex nature of the alcohol precipitate factor required by the chick, 313

Scudi, John V., Unna, Klaus, and **Antopol, William.** A study of the urinary excretion of vitamin B_1 by a colorimetric method, 371

Sealock, Robert Ridgely, and **Silberstein, Hannah E.** The excretion of homogentisic acid and other tyrosine metabolites by the vitamin C-deficient guinea pig, 251

Seeley, Millard. See *Anderson, Seeley, Stewart, Redd, and Westerbeke,* 189

Seifter, S. See *Ecker, Pillemer, Jones, and Seifter,* 347

Silberstein, Hannah E. See *Sealock and Silberstein,* 251

Simpson, Miriam E. See *Fraenkel-Conrat, Fraenkel-Conrat, Simpson, and Evans,* 199

Smith, Elizabeth R. B., and **Smith, Paul K.** Thermodynamic properties of solutions of amino acids and related substances. VI. The activities of some peptides in aqueous solution at twenty-five degrees, 273

Smith, Homer W. See *Smith, Finkelstein, and Smith,* 231

Smith, Paul K. See *Eisenman, Ott, Smith, and Winkler,* 165

—. See *Smith and Smith,* 273

Smith, Willie W., Finkelstein, Norma, and **Smith, Homer W.** Renal excretion of hexitols (sorbitol, mannitol, and dulcitol) and their derivatives (sorbitan, isomannide, and sorbide) and of endogenous creatinine-like chromogen in dog and man, 231

Snell, Esmond E. See *Pennington, Snell, and Williams,* 213

—. See *Stanbery, Snell, and Spies,* 353

Sperry, Warren M., Waelsch, Heinrich, and **Stoyanoff, V. A.** Lipid metabolism in brain and other tissues of the rat, 281

—. See *Waelsch, Sperry, and Stoyanoff,* 291, 297

Spies, Tom D. See *Stanbery, Snell, and Spies,* 353

Stanbery, Sue R., Snell, Esmond E., and **Spies, Tom D.** A note on an assay method for pantothenic acid in human blood, 353

Stanley, W. M. Purification of tomato bushy stunt virus by differential centrifugation, 437

—. See *Lauffer and Stanley,* 463

Stare, F. J. See *Feinstein and Stare,* 393

Stein, William H. See *Doherty, Stein, and Bergmann,* 487

Stern, Kurt G., and **Melnick, Joseph L.** On the mechanism of cocarboxylase action; a reinvestigation, 365

Stewart, William T. See *Anderson, Seeley, Stewart, Redd, and Westerbeke,* 189

Stillman, N. See *Perlman, Stillman, and Chaikoff,* 359

Stone, William E. Acid-soluble phosphorus compounds and lactic acid in the brain, 43

Stoyanoff, V. A. See *Sperry, Waelsch, and Stoyanoff,* 281

—. See *Waelsch, Sperry, and Stoyanoff,* 291, 297

Subbarow, Yellapragada. See *Alexander and Subbarow,* 341

Subrahmanyan, V. See *Green, Herbert, and Subrahmanyan,* 795

T

Taylor, John Fuller. Metalloporphyrins. II. Cobalt and manganese mesoporphyrins in coordination with nitrogenous bases, 569

—. See *Clark, Taylor, Davies, and Vestling,* 543

Teague, D. Maxwell. See *Erickson, Avrin, Teague, and Williams,* 671

Tenery, Robert Mayo, and **Anderson, Carl E.** A photoelectric method for the microdetermination of potassium in blood plasma by the chloroplatinate precipitation, 659

Thannhauser, S. J., and **Reichel, Max.** Studies on animal lipids. XVI. The occurrence of sphingomyelin as a mixture of sphingomyelin fatty acid ester and free sphingomyelin, demonstrated by enzymatic hydrolysis and mild saponification, 1

—. See *Reichel and Thannhauser,* 15

Tolksdorf, Sibylle. See *Jensen, Tolksdorf, and Bamman,* 791
Treadwell, C. R. See *Tucker, Treadwell, and Eckstein,* 85
Tucker, Helen F., Treadwell, C. R., and Eckstein, H. C. The effect of supplementary cystine and methionine on the production of fatty livers by rats on high fat diets containing casein or edestin, 85

U

Unna, Klaus. See *Scudi, Unna, and Antopol,* 371

V

Vestling, Carl S. Metalloporphyrins. IV. Coordination of iron copro- and etioporphyrins with nitrogenous bases, 623
—. See *Clark, Taylor, Davies, and Vestling,* 543
Vickery, Hubert Bradford, Pucher, George W., Schoenheimer, Rudolf, and Rittenberg, D. The assimilation of ammonia nitrogen by the tobacco plant: a preliminary study with isotopic nitrogen, 531
du Vigneaud, Vincent. See *Chandler and du Vigneaud,* 223

W

Waelsch, Heinrich, Sperry, Warren M., and Stoyanoff, V. A. Lipid metabolism in brain during myelination, 297
—, —, and —. A study of the synthesis and deposition of lipids in brain and other tissues with deuterium as an indicator, 291
—. See *Sperry, Waelsch, and Stoyanoff,* 281
Walker, Burnham S. See *Barkan and Walker,* 37, 803
Watson, E. M. See *Williams and Watson,* 337
Weinstock, Harry H., Jr., May, Everette L., Arnold, Aaron, and Price, Donald. Amino acid analogues of pantothenic acid, 343
Werkman, C. H. See *Wood, Werkman, Hemingway, and Nier,* 789
Westerbeke, Don. See *Anderson, Seeley, Stewart, Redd, and Westerbeke,* 189
Wick, Arne N. See *MacKay, Barnes, Carne, and Wick,* 157
—. See *MacKay, Wick, and Barnum,* 183
Williams, H. L., and Watson, E. M. The influence of sulfhydryl compounds upon the activity of bone phosphatase *in vitro,* 337
Williams, Harold H. See *Erickson, Avrin, Teague, and Williams,* 671
Williams, Roger J. See *Pennington, Snell, and Williams,* 213
Williamson, S., and Green, D. E. The preparation of coenzyme I from yeast, 345
Winkler, Alexander W. See *Eisenman, Ott, Smith, and Winkler,* 165
Winnick, Theodore. See *Greenberg and Winnick,* 761, 775, 781
Winter, Irwin C. Fat metabolism after liver injury. Decreased fatty acid utilization by male rats following the administration of carbon tetrachloride, 123
Wood, H. G., Werkman, C. H., Hemingway, Allen, and Nier, A. O. Heavy carbon as a tracer in bacterial fixation of carbon dioxide, 789

Z

Zechmeister, L., and Cholnoky, L. Carotenoids of Hungarian wheat flour, 31
Ziff, Morris. See *Chargaff, Ziff, and Cohen,* 351
Zondek, Samuel Georg. See *Brückmann and Zondek,* 23

INDEX TO SUBJECTS

A

Acetic acid: Ketogenic activity, *MacKay, Barnes, Carne, and Wick*, 157
Phenylamino-, esters, Raney catalyst, reaction, *Ovakimian, Kuna, and Levene*, 91
Acetoacetic acid: Blood, determination, bisulfite-binding method, *Klein*, 143
Acetone: Blood, determination, bisulfite-binding method, *Klein*, 143
Acetone bodies: Liver-produced, form, *Crandall*, 139
Adrenal(s): Cortex principles, insulin hypoglycemia and liver glycogen, effect, *Grattan and Jensen*, 511
Adrenocorticotropic hormone: Pituitary, insulin hypoglycemia and liver glycogen, effect, *Grattan and Jensen*, 511
Alanine: Oxidation, liver, factors influencing, *Rossiter*, 431
Albumin: Egg. *See* Egg albumin
Alcohol precipitate factor: Chick, nature, *Schumacher, Heuser, and Norris*, 313
Allocholanol-3(β)-17-one: Etio-, testosterone conversion, *Dorfman and Fish*, 349
Amino acid(s): Analogues, pantothenic acid, *Weinstock, May, Arnold, and Price*, 343
Liver phospholipids, effect, radioactive phosphorus as indicator, *Perlman, Stillman, and Chaikoff*, 359
Amino acid(s)—*continued:*
Solutions, thermodynamic properties, *Smith and Smith*, 273
Sulfonic acids, aromatic, as reagents, *Doherty, Stein, and Bergmann*, 487
Ammonia: Nitrogen, tobacco plant, assimilation, nitrogen isotope in study, *Vickery, Pucher, Schoenheimer, and Rittenberg*, 531
Yeast nitrogen metabolism, effect, *Schultz, Atkin, and Frey*, 267
Apparatus: Ultrafiltration, *Coolidge*, 541
Arginine: Citrulline replacement of, diet, effect, *Klose and Almquist*, 153
Arthropod(s): Blood serum nitrogen, copper, and hemocyanin, *Allison and Cole*, 259

B

Bacteria: Carbon dioxide fixation, heavy carbon as tracer, *Wood, Werkman, Hemingway, and Nier*, 789
Betaine: Homocystine replacement of methionine, effect, *Chandler and du Vigneaud*, 223
Bios: Factor, liver extract, *Alexander and Subbarow*, 341
Yeast, nitrogen metabolism, effect. *Schultz, Atkin, and Frey*, 267
Bird: Blood cell, red, phytic acid, *Rapoport*, 403
— iodine, seasonal variation, *Clarke and Boyd*, 691

Bisulfite: -Binding substances, blood, pyruvic acid, relation, *Klein*, 143
Biuret reaction: Blood serum proteins, determination, use, *Robinson and Hogden*, 707, 727
Blood: Acetoacetic acid, determination, bisulfite-binding method, *Klein*, 143
Acetone, determination, bisulfite-binding method, *Klein*, 143
Bisulfite-binding substances, pyruvic acid relation, *Klein*, 143
Cephalin, determination, micro-, *Erickson, Avrin, Teague, and Williams*, 671
Cocarboxylase, determination, *Goodhart*, 77
Iodine, birds, seasonal variation, *Clarke and Boyd*, 691
Lecithin, determination, micro-, *Erickson, Avrin, Teague, and Williams*, 671
Lipids, pancreatic duct ligation, choline effect, *Entenman, Montgomery, and Chaikoff*, 329
Pantothenic acid determination, *Stanbery, Snell, and Spies*, 353
Phospholipids, determination, micro-, *Erickson, Avrin, Teague, and Williams*, 671
Pyruvic acid, bisulfite-binding substances, relation, *Klein*, 143
Sphingomyelin, determination, micro-, *Erickson, Avrin, Teague, and Williams*, 671
Blood cell(s): Red, avian, phytic acid, *Rapoport*, 403
—, differentiation, pseudohemoglobin use in, *Barkan and Walker*, 803
—, factor V synthesis from nicotinic acid, *in vitro*, effect, *Kohn and Klein*, 685
—, permeability, potassium, sodium, and phosphate, in-
Blood cell(s)—*continued:*
organic, radioactive isotopes in study, *Eisenman, Ott, Smith, and Winkler*, 165
—, pyridine nucleotide synthesis from nicotinic acid, *in vitro*, effect, *Kohn and Klein*, 685
Blood plasma: Phospholipids, dietary fat effect, *Artom and Freeman*, 59
Potassium determination, micro-, chloroplatinate precipitation, *Tenery and Anderson*, 659
Blood serum: Complement, separation, *Ecker, Pillemer, Jones, and Seifter*, 347
Copper, arthropods, *Allison and Cole*, 259
Hemocyanin, arthropods, *Allison and Cole*, 259
Iron, determination, *o*-phenanthroline use, *Barkan and Walker*, 37
Nitrogen, arthropods, *Allison and Cole*, 259
Proteins, determination, biuret reaction use, *Robinson and Hogden*, 707, 727
Bone: Phosphatase, sulfhydryl compounds, *in vitro*, influence, *Williams and Watson*, 337
Brain: Lactic acid, *Stone*, 43
Lipids, metabolism, *Sperry, Waelsch, and Stoyanoff*, 281
—, —, myelination effect, *Waelsch, Sperry, and Stoyanoff*, 297
—, synthesis and deposition, deuterium as indicator, *Waelsch, Sperry, and Stoyanoff*, 291
Phosphorus compounds, acid-soluble, *Stone*, 43
Bushy stunt virus: Tomato, diffusion constant, *Neurath and Cooper*, 455
—, purification, *Stanley*, 437

Bushy stunt virus—*continued:*
Tomato, sedimentation rate, *Lauffer and Stanley,* 463
Butyric acid: β-Hydroxy-, determination, *Blunden, Hallman, Morehouse, and Deuel,* 757

C

Calcium phosphate: Dissociation, *Greenwald, Redish, and Kibrick,* 65
Carbamide: Yeast nitrogen metabolism, effect, *Schultz, Atkin, and Frey,* 267
Carbon: Heavy, carbon dioxide, bacterial fixation, use as tracer, *Wood, Werkman, Hemingway, and Nier,* 789
Carbon dioxide: Bacterial fixation, heavy carbon as tracer, *Wood, Werkman, Hemingway, and Nier,* 789
Carbon tetrachloride: Fatty acid utilization, administration effect, *Winter,* 123
Carboxylase: Co-, action, mechanism, *Stern and Melnick,* 365
—, blood, determination, *Goodhart,* 77
Isolation and properties, *Green, Herbert, and Subrahmanyan,* 795
Carotenoid(s): Flour, wheat, Hungarian, *Zechmeister and Cholnoky,* 31
Casein: Fatty livers, effect, *Tucker, Treadwell, and Eckstein,* 85
Cephalin: Blood, determination, micro-, *Erickson, Avrin, Teague, and Williams,* 671
Tissues, determination, micro-, *Erickson, Avrin, Teague, and Williams,* 671
Ceramide(s): Synthesis, *Reichel and Thannhauser,* 15
Chick: Alcohol precipitate factor, nature, *Schumacher, Heuser, and Norris,* 313
Choline: Blood, determination, micro-, *Erickson, Avrin, Teague, and Williams,* 671
— lipids, pancreatic duct ligation, effect, *Entenman, Montgomery, and Chaikoff,* 329
Homocystine replacement of methionine, effect, *Chandler and du Vigneaud,* 223
Liver lipids, pancreatic duct ligation, effect, *Entenman, Montgomery, and Chaikoff,* 329
Tissues, determination, micro-, *Erickson, Avrin, Teague, and Williams,* 671
Chromogen: Creatinine-like, excretion, kidney, *Smith, Finkelstein, and Smith,* 231
Citrulline: Arginine replacement, diet, effect, *Klose and Almquist,* 153
Cobalt: Mesoporphyrin, nitrogenous bases, coordination, *Taylor,* 569
Cocarboxylase: Action, mechanism, *Stern and Melnick,* 365
Blood, determination, *Goodhart,* 77
Coenzyme: I, yeast, preparation, *Williamson and Green,* 345
Complement: Blood serum, separation, *Ecker, Pillemer, Jones, and Seifter,* 347
Convection effect(s): Electrophoresis, *Alvarez-Tostado,* 799
Copper: Blood serum, arthropods, *Allison and Cole,* 259
Coproporphyrin: I, pyridine, spectrophotometry, *Clark and Perkins,* 643
Iron, nitrogenous bases, coordination, *Vestling,* 623
Creatine: Muscle, heart, *Mangun and Myers,* 411

Creatine—*continued:*
Muscle, voluntary, *Corsaro, Mangun, and Myers,* 407
Mangun and Myers, 411
Creatinine: -Like chromogen, excretion, kidney, *Smith, Finkelstein, and Smith,* 231
Creatinuria: Testosterone propionate effect, *Coffman and Koch,* 519
Cystine: Fatty livers, effect, *Tucker, Treadwell, and Eckstein,* 85
Homo-, methionine replacement by, choline and betaine effect, comparison, *Chandler and du Vigneaud,* 223

D

Deuterium: Brain lipids, synthesis and deposition, indicator, *Waelsch, Sperry, and Stoyanoff,* 291
Tissue lipids, synthesis and deposition, indicator, *Waelsch, Sperry, and Stoyanoff,* 291
Diastase: Taka-, buffer influence, *Ballou and Luck,* 111
Diiodotyrosine: Thyroxine, conversion, *Block,* 51
Dulcitol: Kidney excretion, *Smith, Finkelstein, and Smith,* 231

E

Edestin: Fatty livers, effect, *Tucker, Treadwell, and Eckstein,* 85
Egg albumin: Sulfhydryl groups, *Anson,* 797
Electrophoresis: Convection effects, *Alvarez-Tostado,* 799
Enzyme(s): Co-, I, yeast, preparation, *Williamson and Green,* 345
Glycogen synthesis from glucose-1-phosphate, kinetics, *Cori and Cori,* 733
Enzyme(s)—*continued:*
See also Carboxylase, Cocarboxylase, Coenzyme, Oxidase, Pepsin, Phosphatase, Protease, Rennin, Taka-diastase, Trypsin
Erythrocyte(s): *See* Blood cell, red
Estratrienol-3-one-17: Δ -5, 7, 9-urine, pregnancy, isolation, *Heard and Hoffman,* 801
Etioallocholanol-3(β)-17-one: Testosterone conversion, *Dorfman and Fish,* 349
Etioporphyrin: Iron, nitrogenous bases, coordination, *Vestling,* 623

F

Factor V: Synthesis from nicotinic acid, *in vitro,* blood cell, red, effect, *Kohn and Klein,* 685
Fat(s): Dietary, blood plasma phospholipids, effect, *Artom and Freeman,* 56
-High diet, fatty livers, effect, *Tucker, Treadwell, and Eckstein,* 85
Metabolism, liver injury effect, *Winter,* 123
Sphingosine, synthesis, *Reichel and Thannhauser,* 15
Fatty acid(s): Ketogenic action, *MacKay, Wick, and Barnum,* 183
Utilization, carbon tetrachloride administration effect, *Winter,* 123
Flour: Wheat, Hungarian, carotenoids, *Zechmeister and Cholnoky,* 31
Follicle-stimulating hormone: Pituitary, preparation and properties, trypsin digestion, *McShan and Meyer,* 473
—, purification, *Jensen, Tolksdorf, and Bamman,* 791

G

Glucose: Absorption, phosphorus metabolism, effect, *Reiser*, 303

Glucose-1-phosphate: Glycogen synthesis, enzymatic, from, kinetics, *Cori and Cori*, 733

Glutamic acid: Hydrogen-carbon linkages, stability, *Ratner, Rittenberg, and Schoenheimer*, 357

Glycerophosphoric acid(s): *d*(+)-α-, *l*(−)-α-, and *dl*-α-, synthetic, phosphatase action, *Baer and Fischer*, 321

—, synthesis, *Baer and Fischer*, 231

Glycine: Rice factor, nature, *Almquist and Mecchi*, 355

Sarcosine demethylation, biological, relation, *Bloch and Schoenheimer*, 99

Glycogen: Liver, adrenal cortex principles, effect, *Grattan and Jensen*, 511

—, pituitary adrenocorticotropic hormone effect, *Grattan and Jensen*, 511

Synthesis, enzymatic, from glucose-1-phosphate, kinetics, *Cori and Cori*, 733

Glycolic acid: Oxidase, *Dohan*, 793

H

Hardwood: Hemicelluloses, origin and composition, *Anderson, Seeley, Stewart, Redd, and Westerbeke*, 189

Heart: *See also* Muscle

Hematoporphyrin(s): Iron, nitrogenous bases, coordination, *Davies*, 597

Hemicellulose(s): Hardwood, origin and composition, *Anderson, Seeley, Stewart, Redd, and Westerbeke*, 189

Hemin: Non-, iron, determination, *Brückmann and Zondek*, 23

Hemocyanin: Blood serum, arthropods, *Allison and Cole*, 259

Hemoglobin: Pseudo-, blood cells, red, differentiation by, *Barkan and Walker*, 803

—, iron, determination, *o*-phenanthroline use, *Barkan and Walker*, 37

Hexitol(s): Kidney excretion, *Smith, Finkelstein, and Smith*, 231

Homocystine: Methionine replacement by, choline and betaine effect, comparison, *Chandler and du Vigneaud*, 223

Homogentisic acid: Excretion, vitamin C deficiency effect, *Sealock and Silberstein*, 251

Hydroxybutyric acid: β-, determination, *Blunden, Hallman, Morehouse, and Deuel*, 757

Hypoglycemia: Insulin, adrenal cortex principles, effect, *Grattan and Jensen*, 511

—, pituitary adrenocorticotropic hormone effect, *Grattan and Jensen*, 511

I

Insulin: Hypoglycemia, adrenal cortex principles, effect, *Grattan and Jensen*, 511

—, pituitary adrenocorticotropic hormone effect, *Grattan and Jensen*, 511

Interstitial cell-stimulating hormone: Pituitary, purification, *Jensen, Tolksdorf, and Bamman*, 791

Iodine: Blood, birds, seasonal variation, *Clarke and Boyd*, 691

Iron: Blood serum, determination, *o*-phenanthroline use, *Barkan and Walker*, 37

Coproporphyrin, nitrogenous bases, coordination, *Vestling*, 623

Iron—*continued:*
Etioporphyrin, nitrogenous bases, coordination, *Vestling*, 623
Hematoporphyrin, nitrogenous bases, coordination, *Davies*, 597
Mesoporphyrin, nitrogenous bases, coordination, *Davies*, 597
Non-hemin, determination, *Brückmann and Zondek*, 23
Protoporphyrin, nitrogenous bases, coordination, *Davies*, 597
Pseudohemoglobin, determination, *o*-phenanthroline use, *Barkan and Walker*, 37
Isomannide: Kidney excretion, *Smith, Finkelstein, and Smith*, 231

K

Ketogenic activity: Acetic acid, *MacKay, Barnes, Carne, and Wick*, 157
Fatty acids, *MacKay, Wick, and Barnum*, 183
Ketosis: *Blunden, Hallman, Morehouse, and Deuel*, 757
Ketosteroid(s): 17-, determination, colorimetric, *Holtorff and Koch*, 377
—, urine, determination, colorimetric, *Holtorff and Koch*, 377

L

Lactic acid: Brain, *Stone*, 43
Determination, colorimetric, *Koenemann*, 105
Lecithin: Blood, determination, micro-, *Erickson, Avrin, Teague, and Williams*, 671
Tissue, determination, micro-, *Erickson, Avrin, Teague, and Williams*, 671
Lignocerylsphingosine: Fatty acid esters, synthesis, *Reichel and Thannhauser*, 15
Lipid(s): Animal, *Thannhauser and Reichel*, 1
Reichel and Thannhauser, 15
Blood, pancreatic duct ligation, choline effect, *Entenman, Montgomery, and Chaikoff*, 329
Brain, metabolism, *Sperry, Waelsch, and Stoyanoff*, 281
—, —, myelination effect, *Waelsch, Sperry, and Stoyanoff*, 297
—, synthesis and deposition, deuterium as indicator, *Waelsch, Sperry, and Stoyanoff*, 291
Liver, pancreatic duct ligation, choline effect, *Entenman, Montgomery, and Chaikoff*, 329
Tissue, metabolism, *Sperry, Waelsch, and Stoyanoff*, 281
—, synthesis and deposition, deuterium as indicator, *Waelsch, Sperry, and Stoyanoff*, 291
See also Phospholipid
Liver: Acetone body formation, *Crandall*, 139
Alanine oxidation by, factors influencing, *Rossiter*, 431
Extract, bios factor, *Alexander and Subbarow*, 341
Fatty, casein effect, *Tucker, Treadwell, and Eckstein*, 85
—, cystine effect, *Tucker, Treadwell, and Eckstein*, 85
—, edestin effect, *Tucker, Treadwell, and Eckstein*, 85
—, fat-high diet, effect, *Tucker, Treadwell, and Eckstein*, 85
—, methionine effect, *Tucker, Treadwell, and Eckstein*, 85
Glycogen, adrenal cortex principles, effect, *Grattan and Jensen*, 511
—, pituitary adrenocorticotropic hormone effect, *Grattan and Jensen*, 511

Liver—*continued:*
Injury, fat metabolism, effect, *Winter,* 123
Lipids, pancreatic duct ligation, choline effect, *Entenman, Montgomery, and Chaikoff,* 329
Phospholipids, amino acid effect, radioactive phosphorus as indicator, *Perlman, Stillman, and Chaikoff,* 359
Respiration, pyrophosphate and various media, effect, *Feinstein and Stare,* 393

M

Magnesium phosphate: Dissociation, *Greenwald, Redish, and Kibrick,* 65
Manganese: Mesoporphyrin, nitrogenous bases, coordination, *Taylor,* 569
Mannide: Iso-, kidney excretion, *Smith, Finkelstein, and Smith,* 231
Mannitol: Kidney excretion, *Smith, Finkelstein, and Smith,* 231
Mesoporphyrin: Cobalt, nitrogenous bases, coordination, *Taylor,* 569
Iron, nitrogenous bases, coordination, *Davies,* 597
Manganese, nitrogenous bases, coordination, *Taylor,* 569
Metalloporphyrin(s): *Clark, Taylor, Davies, and Vestling,* 543
Taylor, 569
Davies, 597
Vestling, 623
Clark and Perkins, 643
Nitrogenous bases, coordination, *Clark, Taylor, Davies, and Vestling,* 543
Methionine: Fatty livers, effect, *Tucker, Treadwell, and Eckstein,* 85
Homocystine replacement of, choline and betaine effect, comparison, *Chandler and du Vigneaud,* 223
Muscle: Dystrophy, α-tocopherylquinone, relation, *Golumbic and Mattill,* 339
Heart, creatine, *Mangun and Myers,* 411
—, phosphorus, *Mangun and Myers,* 411
—, potassium, *Mangun and Myers,* 411
Voluntary, creatine, *Corsaro, Mangun, and Myers,* 407
Mangun and Myers, 411
—, phosphorus, *Mangun and Myers,* 411
—, potassium, *Mangun and Myers,* 411
Myelination: Brain lipid metabolism, *Waelsch, Sperry, and Stoyanoff,* 297

N

Nicotinic acid: Determination, chemical, *Melnick and Field,* 53
Factor V synthesis from, *in vitro,* blood cell, red, effect, *Kohn and Klein,* 685
Pyridine nucleotides, synthesis from, *in vitro,* blood cell, red, effect, *Kohn and Klein,* 685
Nitrogen: Ammonia, tobacco plant, assimilation, nitrogen isotope in study, *Vickery, Pucher, Schoenheimer, and Rittenberg,* 531
Blood serum, arthropods, *Allison and Cole,* 259
Metabolism, yeast, ammonia effect, *Schultz, Atkin, and Frey,* 267
—, —, bios effect, *Schultz, Atkin, and Frey,* 267
—, —, carbamide effect, *Schultz, Atkin, and Frey,* 267

Nitrogenous base(s): Cobalt and manganese mesoporphyrins, coordination, *Taylor*, 569
Iron coproporphyrins and etioporphyrins, coordination, *Vestling*, 623
— mesoporphyrin, protoporphyrin, and hematoporphyrin, coordination, *Davies*, 597
Metalloporphyrins, coordination, *Clark, Taylor, Davies, and Vestling*, 543
Nucleotide(s): Pyridine, synthesis from nicotinic acid, *in vitro*, blood cell, red, effect, *Kohn and Klein*, 685

O

Oil(s): Absorption, phosphorus metabolism, effect, *Reiser*, 303
Organic compound(s): Vitamin C synthesis, effect, *Longenecker, Fricke, and King*, 497
Oxidase: Glycolic acid, *Dohan*, 793

P

Pancreas: Duct ligation, blood and liver lipids, choline effect, *Entenman, Montgomery, and Chaikoff*, 329
Pantothenic acid: Amino acid analogues, *Weinstock, May, Arnold, and Price*, 343
Blood, determination, *Stanbery, Snell, and Spies*, 353
Determination, *Pennington, Snell, and Williams*, 213
Pepsin: Pressure effect, *Matthews, Dow, and Anderson*, 697
Peptide(s): Activity, aqueous solutions, *Smith and Smith*, 273
Phenylalanine: Esters, Raney catalyst, reaction, *Ovakimian, Kuna, and Levene*, 91
Tyrosine conversion, biological, *Moss and Schoenheimer*, 415
Phenylaminoacetic acid: Esters, Raney catalyst, reaction, *Ovakimian, Kuna, and Levene*, 91
Phosphatase(s): Bone, sulfhydryl compounds, *in vitro*, influence, *Williams and Watson*, 337
α-Glycerophosphoric acids, synthetic, action, *Baer and Fischer*, 321
Phosphate: Inorganic, radioactive, blood cell, red, permeability, *Eisenman, Ott, Smith, and Winkler*, 165
Phosphatide(s): Phosphoric acid esters related to, synthesis, *Christensen*, 399
Phospholipid(s): Blood, determination, micro-, *Erickson, Avrin, Teague, and Williams*, 671
— plasma, dietary fat effect, *Artom and Freeman*, 59
Liver, amino acid effect, radioactive phosphorus as indicator, *Perlman, Stillman, and Chaikoff*, 359
Metabolism, radioactive phosphorus as indicator, *Perlman, Stillman, and Chaikoff*, 359
Tissues, determination, micro-, *Erickson, Avrin, Teague, and Williams*, 671
See also Lipid
Phosphoric acid: Esters, phosphatide-related, synthesis, *Christensen*, 399
Phosphorus: Metabolism, glucose absorption, effect, *Reiser*, 303
—, oils, absorption, effect, *Reiser*, 303
Muscle, heart, *Mangun and Myers*, 411
—, voluntary, *Mangun and Myers*, 411
Radioactive, phospholipid metabolism indicator, *Perlman, Stillman, and Chaikoff*, 359

Phosphorus—*continued:*
Radioactive, prothrombin conversion to thrombin, indicator, *Chargaff, Ziff, and Cohen*, 351
Phosphorus compound(s): Acid-soluble, brain, *Stone*, 43
Phytic acid: Blood cell, red, avian, *Rapoport*, 403
Pituitary: Adrenocorticotropic hormone, insulin hypoglycemia and liver glycogen, effect, *Grattan and Jensen*, 511
Anterior, thyrotropic hormone, purification, *Fraenkel-Conrat, Fraenkel-Conrat, Simpson, and Evans*, 199
Follicle-stimulating fractions, preparation and properties, trypsin digestion, *McShan and Meyer*, 473
— hormone, purification, *Jensen, Tolksdorf, and Bamman*, 791
Interstitial cell-stimulating hormone, purification, *Jensen, Tolksdorf, and Bamman*, 791
Plant: Proteases, *Greenberg and Winnick*, 761, 775, 781
—, activation-inhibition reaction, *Greenberg and Winnick*, 761
—, hydrogen ion concentration-activity curves, *Greenberg and Winnick*, 775
—, kinetics, *Greenberg and Winnick*, 781
Porphyrin(s): Copro-, I, pyridine, spectrophotometry, *Clark and Perkins*, 643
—, iron, nitrogenous bases, coordination, *Vestling*, 623
Etio-, iron, nitrogenous bases, coordination, *Vestling*, 623
Hemato-, iron, nitrogenous bases, coordination, *Davies*, 597
Meso-, cobalt, nitrogenous bases, coordination, *Taylor*, 569
—, iron, nitrogenous bases, coordination, *Davies*, 597
Porphyrin(s)—*continued:*
Meso-, manganese, nitrogenous bases, coordination, *Taylor*, 569
Metallo-, *Clark, Taylor, Davies, and Vestling*, 543
Taylor, 569
Davies, 597
Vestling, 623
Clark and Perkins, 643
—, nitrogenous bases, coordination, *Clark, Taylor, Davies, and Vestling*, 543
Proto-, iron, nitrogenous bases, coordination, *Davies*, 597
Potassium: Blood plasma, determination, micro-, chloroplatinate precipitation, *Tenery and Anderson*, 659
Muscle, heart, *Mangun and Myers*, 411
—, voluntary, *Mangun and Myers*, 411
Radioactive, blood cell, red, permeability, *Eisenman, Ott, Smith, and Winkler*, 165
Pregnancy: Urine Δ-5, 7, 9-estratrienol - 3 - one - 17, isolation, *Heard and Hoffman*, 801
Pressure: Pepsin activity, effect, *Matthews, Dow, and Anderson*, 697
Rennin activity, effect, *Matthews, Dow, and Anderson*, 697
Protease(s): Plant, *Greenberg and Winnick*, 761, 775, 781
—, activation-inhibition reaction, *Greenberg and Winnick*, 761
—, hydrogen ion concentration-activity curves, *Greenberg and Winnick*, 775
—, kinetics, *Greenberg and Winnick*, 781
Protein(s): Blood serum, determination, biuret reaction use, *Robinson and Hogden*, 707, 727

Prothrombin: Thrombin, conversion, radioactive phosphorus as indicator, *Chargaff, Ziff, and Cohen,* 351
Protoporphyrin(s): Iron, nitrogenous bases, coordination, *Davies,* 597
Pseudohemoglobin: Blood cells, red, differentiation by, *Barkan and Walker,* 803
Iron, determination, *o*-phenanthroline use, *Barkan and Walker,* 37
Pyridine: Nucleotides, synthesis from nicotinic acid, *in vitro,* blood cell, red, effect, *Kohn and Klein,* 685
Pyridine coproporphyrin: I, spectrophotometry, *Clark and Perkins,* 643
Pyrophosphate: Liver respiration, effect, *Feinstein and Stare,* 393
Pyruvic acid: Blood, bisulfite-binding substances, relation, *Klein,* 143

Q

Quinone: α-Tocopheryl-, muscle dystrophy, relation, *Golumbic and Mattill,* 339

R

Raney catalyst: Phenylalanine esters, reaction, *Ovakimian, Kuna, and Levene,* 91
Phenylaminoacetic acid esters, reaction, *Ovakimian, Kuna, and Levene,* 91
Rennin: Pressure effect, *Matthews, Dow, and Anderson,* 697
Rice factor: Glycine component, nature, *Almquist and Mecchi,* 355
Identification, *Almquist and Mecchi,* 355

S

Sarcosine: Demethylation, biological, glycine, relation, *Bloch and Schoenheimer,* 99
Sodium: Radioactive, blood cell, red, permeability, *Eisenman, Ott, Smith, and Winkler,* 165
Sorbide: Kidney excretion, *Smith, Finkelstein, and Smith,* 231
Sorbitan: Kidney excretion, *Smith, Finkelstein, and Smith,* 231
Sorbitol: Kidney excretion, *Smith, Finkelstein, and Smith,* 231
Sphingomyelin: Blood, determination, micro-, *Erickson, Avrin, Teague, and Williams,* 671
Occurrence, *Thannhauser and Reichel,* 1
Tissues, determination, micro-, *Erickson, Avrin, Teague, and Williams,* 671
Sphingosine: Amides, synthesis, *Reichel and Thannhauser,* 15
Fats, synthesis, *Reichel and Thannhauser,* 15
Lignoceryl-, fatty acid esters, synthesis, *Reichel and Thannhauser,* 15
Steroid(s): 17-Keto-, determination, colorimetric, *Holtorff and Koch,* 377
—, urine, determination, colorimetric, *Holtorff and Koch,* 377
Sulfhydryl compound(s): Bone phosphatase, *in vitro,* influence, *Williams and Watson,* 337
Sulfhydryl group(s): Egg albumin, *Anson,* 797
Sulfonic acid(s): Aromatic, amino acid reagents, *Doherty, Stein, and Bergmann,* 487

T

Taka-diastase: Buffer influence, *Ballou and Luck,* 111

Testosterone: Etioallocholanol-3(β)-17-one, conversion, *Dorfman and Fish*, 349
Testosterone propionate: Creatinuria, effect, *Coffman and Koch*, 519
Thiamine: Determination, chemical, *Emmett, Peacock, and Brown*, 131
Thrombin: Prothrombin conversion, radioactive phosphorus as indicator, *Chargaff, Ziff, and Cohen*, 351
Thyrotropic hormone: Pituitary, anterior, purification, *Fraenkel-Conrat, Fraenkel-Conrat, Simpson, and Evans*, 199
Thyroxine: Diiodotyrosine conversion, *Block*, 51
Tissue(s): Lipids, metabolism, *Sperry, Waelsch, and Stoyanoff*, 281
—, synthesis and deposition, deuterium as indicator, *Waelsch, Sperry, and Stoyanoff*, 291
Phospholipids, determination, micro-, *Erickson, Avrin, Teague, and Williams*, 671
Tobacco: Plant, ammonia nitrogen assimilation, nitrogen isotope in study, *Vickery, Pucher, Schoenheimer, and Rittenberg*, 531
Tocopherylquinone: α-, muscle dystrophy, relation, *Golumbic and Mattill*, 339
Tomato: Bushy stunt virus, diffusion constant, *Neurath and Cooper*, 455
— — —, purification, *Stanley*, 437
— — —, sedimentation rate, *Lauffer and Stanley*, 463
Trigonelline: Synthesis and excretion, *Sarett, Perlzweig, and Levy*, 483
Trypsin: Pituitary follicle-stimulating hormone, preparation and properties, use, *McShan and Meyer*, 473
Tungsten: Biological materials, determination, *Aull and Kinard*, 119
Tyrosine: Diiodo-, thyroxine, conversion, *Block*, 51
Metabolites, excretion, vitamin C deficiency effect, *Sealock and Silberstein*, 251
Phenylalanine conversion, biological, *Moss and Schoenheimer*, 415

U

Ultrafiltration: Apparatus, *Coolidge*, 541
Urine: 17-Ketosteroids, determination, colorimetric, *Holtorff and Koch*, 377
Pregnancy, Δ-5, 7, 9-estratrienol-3-one-17, isolation, *Heard and Hoffman*, 801
Vitamin B_6 excretion, *Scudi, Unna, and Antopol*, 371

V

Virus: Bushy stunt, tomato, diffusion constant, *Neurath and Cooper*, 455
— —, —, purification, *Stanley*, 437
— —, —, sedimentation rate, *Lauffer and Stanley*, 463
Vitamin(s): B_1. *See also* Thiamine
B_6, urine, excretion, *Scudi, Unna, and Antopol*, 371
C, deficiency, homogentisic acid excretion, effect, *Sealock and Silberstein*, 251

Vitamin(s)—*continued:*
C, deficiency, tyrosine metabolites, excretion, effect, *Sealock and Silberstein*, 251
—, synthesis, organic compounds, effect, *Longenecker, Fricke, and King*, 497

W

Wheat: Flour, Hungarian, carotenoids, *Zechmeister and Cholnoky*, 31

Wool: Powdered, chemistry, *Routh*, 175

Y

Yeast: Coenzyme I preparation, *Williamson and Green*, 345
Nitrogen metabolism, ammonia effect, *Schultz, Atkin, and Frey*, 267
— —, bios effect, *Schultz, Atkin, and Frey*, 267
— —, carbamide effect, *Schultz, Atkin, and Frey*, 267